## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

10/500,657

**Applicant** 

Josef BERWANGER et al.

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## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(b), AND EXPLANATION OF THE RELEVANCE OF THE CITED PRIOR ART

Sir:

The undersigned hereby requests that the prior art cited on the attached prior art statement be placed of record in the application file and be considered by the examiner.

This citation of prior art is made under 37 CFR 1.97(b), since it is being filed before the mailing date of a first Office action.

The relevance of the prior art cited on the attached form 1449 is as follows:

### 6,011,801

According to the teachings of this patent, information flow in the form of individual channels of digital data across a time division multiplex (TDM) bus is controlled when the bandwidth bc of an individual channel may not be integrally related to the bandwidth bt of individual time slots of the TDM bus. A channel is assigned to a selected number m of TDM bus time slots, where m=n and the relationship between bc and bt is given by the expression (n-1)bt<bc mu nbt. Sequential bytes of data from the channel are transmitted during data byte opportunities in the channel's selected time slots. A validity identification signal is generated for each data byte transfer opportunity in the selected time slots, and a predetermined binary state is transmitted substantially simultaneously with each data byte transfer opportunity. A VALID signal is transmitted, independently of the TDM bus, substantially simultaneously with each data byte transfer opportunity filled by the channel. To permit selected bandwidth in the reverse direction to be controlled over a bidirectional TDM bus, a separate bandwidth request signal may also be transmitted, substantially simultaneously with data byte transfer opportunities in the forward direction but also independently of the TDM bus.

#### <u>6,138,200</u>

This patent teaches a system and method for arbitrating amongst a plurality of applications requesting bus access. Based on the applications requesting bus access, a bus frame is calculated, and a plurality of bus duration time slots within the bus frame are determined. For each bus duration time slot, a priority is assigned to each application requesting bus control and a bus allocation table is created. A bus master controller then

allocates control during each bus duration time slot in accordance with the priorities in the bus allocation table.

### WO 99/55036

This publication teaches methods and apparatuses for allocating time slots to circuitswitched channels established to comprise one or more respective time slots in a recurrent
frame of a time division multiplexed network. According to the invention, a time slot
allocated to said channel is associated with a selected level, of at least two available levels of
priority. Decisions as to whether or not to deallocate said time slot from said channel is then
based upon a comparison of said selected level of priority and a level of priority associated
with a request for a time slot for another channel.

#### **WO 93/25017**

This publication teaches a method for transferring ancillary information, such as channel-associated signaling and alarms in a basic time-division multiplex system, where ancillary information is transferred in a predetermined time slot (TS16) of each frame, and where information associated with more than one channel is transferred in at least one time slot (TS1...TS15, TS17...TS31) of the basic system. To provide a method allowing the ancillary information, particularly signalling and alarms, to be transferred with as high compatibility as possible in a conventional basic multiplex system up to a capacity of 120 speech channels, a superframe (12) having the length of several multi-frames (11) is assembled, and at least part of the ancillary information is transferred in said predetermined time slot (TA16) so that the number of the multi-frame is transmitted in addition to said

ancillary information, the number indicating with which channel the ancillary information is associated.

### WO 98/00941

According to the teachings of this publication, in a subscriber loop equipment (10) having a subscriber bus (26), there is provided an odd data stream carrying a first set of data time slots of an E1 signal and a first set of signaling and control time slots of the E1 signal. Also provided is an even data stream carrying a second set of data time slots of the E1 signal and a second set of signaling and control time slots of the E1 signal. The odd and even data streams are bit-interleaved and transported on the subscriber bus (26).

#### **DE 197 06 081 A1**

This patent teaches a method involving transmitting data bits in a sequence of time frames (202, 204, 206). The number of bits in each time frame corresponds to the Integrated Services Digital Network (ISDN) standard. At least one useful channel uses packet-orientated transmission, and the transmitted assembled data packet includes a packet identifier. The complete frame which is transmitted in 1.5 ms, contains 26 useful channels, each having time slots allotted for 8 bits. The data in each channel are collected into packets, with the packet identifier (221) in bit position 18, following a packet identifier (220) for the complete frame in position 17 of the first sub frame (202). The packet identifier (221) has at least one fixed adjustable position in at least one time frame of the sequence of transmitted time frames. Preferably the packet identifier has a fixed predetermined position within the ISDN standard predetermined service frame.

# K. Etschberger et al., Buscontrollerbaustein für echtzeitfähige Netze, Electonik 25, Ausgust 12, 1989, Pages 79-83

There is no translation available for this publication. It is being cited to show the state of the art.

Examination of this application is respectfully requested.

Respectfully submitted,

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#### Docket Number (Optional) Application Number 10/500,657 (04:81)INFORMATION DISCLOSURE CITATION Applicant(s) Josef BERWANGER et al. (Use several sheets if necessary) Filing Date **Group Art Unit** 02-14-2005 **U.S. PATENT DOCUMENTS** EXAMINER FILING DATE REF DOCUMENT NUMBER DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE 6,011,801 01-04-2000 **SOLOMON** 6,138,200 10-24-2000 **OGILVIE** U.S. PATENT APPLICATION PUBLICATIONS EXAMINER FILING DATE REF DOCUMENT NUMBER DATE NAME CLASS SUBCLASS INITIAL IF APPROPRIATE FOREIGN PATENT DOCUMENTS Translation REF DOCUMENT NUMBER COUNTRY DATE CLASS SUBCLASS YES NO 10-28-1999 WO 99/55036 **PCT** WO 93/25017 12-09-1993 **PCT** WO 98/00941 01-08-1998 **PCT** DE 197 06 081 A1 08-20-1998 Germany

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

K. Etschberger et al., Buscontrollerbaustein für echtzeitfähige Netze, Electonik 25, Ausgust 12, 1989, Pages 79-83

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-A820 (also form PTO-1449)

P09A/REV05

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